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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method, comprising:

requesting that an operating system [[to]] place a mobile computer system in a hibernation mode;
gathering a state of the mobile computer system, wherein the state includes contents of a central
processing unit of the mobile computer system and contents of a main memory of the mobile
computer system;

storing the system state to a first non-volatile memory cache of the mobile computer system,
wherein the first non-volatile memory cache has a storage capacity between 50-2000 megabytes;
and

storing the system state to a second non-volatile memory-hard disk drive of the mobile computer
system, which is coupled with the first non-volatile memory cache, via a transparent write-through
process, wherein the second non-volatile memory is internal to the computer system

putting the mobile computer system into the hibernation mode including putting the hard disk drive
into the hibernation mode; and

waking the mobile computer system from the hibernation mode including loading the state from the
first non-volatile memory cache instead of from the hard disk drive.

2. (Currently Amended) The method of claim 1, wherein the state of the computer system is gathered by the operating system.

3. (Currently Amended) The method of claim 1, ~~wherein the first nonvolatile memory has a storage capacity between 50-2000 megabytes, wherein the second non-volatile memory hard disk drive has a greater storage capacity than the first non-volatile memory cache.~~

4. (Currently Amended) The method of claim 3, wherein the first non-volatile memory cache is logically coupled to the ~~second non-volatile memory hard disk drive~~.

Claims 5-19 (Cancelled)

20. (Currently Amended) A mobile computer system, comprising:

a central processing unit (CPU);

a main memory coupled to the CPU, wherein the main memory ~~stores~~ is to store data to be manipulated by the CPU;

a first non-volatile memory cache of the mobile computer system coupled to the main memory, wherein the data ~~of the main memory~~ is to be stored to the first non-volatile memory cache if the mobile computer system is placed in a hibernation mode, ~~wherein the first non-volatile memory cache has a storage capacity between 50-2000 megabytes~~; and

~~a second internal non-volatile memory hard disk drive of the mobile computer system~~ coupled to the first non-volatile memory cache, wherein the ~~second non-volatile memory hard disk drive~~ has a greater storage capacity than the first non-volatile memory cache, and ~~wherein the first non-volatile memory has the same address configuration as the second internal nonvolatile memory~~

wherein the data is to be restored from the first non-volatile memory cache instead of from the hard disk drive when the system is awoken from the hibernation mode.

21. (Currently Amended) The system of claim 20, wherein a state of the CPU is to be stored to the first non-volatile memory cache if the system is placed in [[a]] the hibernation mode.

Claim 22 (Cancelled)

23. (Currently Amended) The system of claim 21, wherein the data of the main memory and the state of the CPU is to be stored to the hard disk drive through a transparent write-through process ~~second non-volatile memory~~.

24. (Currently Amended) The system of claim 20, further comprising:

a driver coupled to the main memory and the first ~~nonvolatile~~ non-volatile memory cache, wherein the driver is to write the writes data of the main memory to the first non-volatile memory cache.

Claims 25-29 (Cancelled)

30. (Currently Amended) An article comprising a machine readable medium having a plurality of machine readable instructions, ~~wherein that when the instructions are executed by a machine processor, the instructions cause a system~~ the machine to:

write contents of a central processing unit (CPU) to a ~~nonvolatile~~ non-volatile memory cache of the machine that has a same address configuration as a hard disk drive of the machine a mobile or desktop computer prior to the machine being placed in a hibernation mode; [[and]]

write data from a random access memory to the non-volatile memory cache of the machine prior to the machine being placed in the hibernation mode;

write the contents of the CPU to the hard disk drive of the machine using a transparent write-through process; and

initiate a load sequence from the non-volatile memory cache rather than from the hard disk drive after being awoken from the hibernation mode.

Claims 31-32 (Cancelled)

33. (Currently Amended) The article of claim [[31]] 30, comprising a machine readable medium having a plurality of machine readable instructions, wherein when the instructions are executed by a processor, the instructions further cause a system to further comprising instructions that when executed cause the machine to:

restore the CPU contents.

34. (Currently Amended) The method of claim 1, wherein the second non-volatile memory hard disk drive has the same address configuration as the first non-volatile memory.

35. (Cancelled)

36. (New) The mobile computer system of claim 20, wherein the first non-volatile memory cache has a same address configuration as the hard disk drive.